# CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

**NABL** - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377


Job No.: CTCE/BBMP/WNo.13/KRIDL/CSR-09/134a/CEMENT/2016-17 Date: 03.09.2016

## TEST REPORT ON CEMENT

| | | |
|---|---|---|
| * CUSTOMER | : | **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore. |
| *AGENCY | : | **Technical Manager (West),** KRIDL, Bangalore. |
| *NAME OF THE WORK | : | Improvements of CC roads and drains at Lake side Avenue Defence Colony and Shanthi Layout and other roads in Ward No. 13, Shettyhalli Sub Division, BBMP, Bangalore. |
| REFERENCE | : | AEE/SSD/PR/61/2016-17 Dated: 02.09.2016 |
| SAMPLE ID | : | Cement – Sample 8 |
| SAMPLE RECEIVED ON | : | 02.09.2016 |
| PERIOD OF TESTING | : | 02.09.2016 to 03.09.2016 |

The results of the tests conducted on the cement sample are as follows:

| Sl. No | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 8112-2013 |
|---|---|---|---|---|
| 1 | Standard Consistency | IS-4031 (Part -4) 1988(RA-2009) | 29.00% | - |
| 2 | a) Initial Setting Time | IS-4031 (Part -5) 1988(RA-2009) | 145 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part -5) 1988(RA-2009) | 460 Minutes | Not More than 600 Minutes |
| 3 | Soundness by Le Chartlier Method | IS-4031 (Part-3) 1988(RA-2009) | 1 mm | Not more than 10mm |

*Information is furnished by the Customer/Representative.

Note:

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⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

*********

VISHWANATH .C
Quality Manager

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T-2377


Job No.: CTCE/BBMP/WNo.13/KRIDL/CSR-09/134a/SAND-Gradation/2016-17 : 03.09.2016

## TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

* **Customer** : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* **Agency** : **Technical Manager (West),** KRIDL, Bangalore.
* **Name of Work** : Improvements of CC roads and drains at Lake side Avenue Defence Colony and Shanthi Layout and other roads in Ward No. 13, Shettyhalli Sub Division, BBMP, Bangalore.

**Reference** : AEE/SSD/PR/61/2016-17 Dated: 02.09.2016

**Technical Reference** : IS : 2386 Part 1 - 1963 RA-2007

**Sample ID** : Fine Aggregates - Sample 8

**Sample Received on** : 02.09.2016

**Date of Testing** : 03.09.2016

Total Wt. of Aggregates in gms **1000**

| Is Sieve Size in mm | Cumulative Weight Passing in % | Spec.Limits as per IS 383-1970 (RA- 2007) | | | |
|---|---|---|---|---|---|
| | | Zone-I | Zone-II | Zone-III | Zone-IV |
| 10 | 100 | 100 | 100 | 100 | 100 |
| 4.75 | 92.54 | 90-100 | 90-100 | 90-100 | 95-100 |
| 2.36 | 77.92 | 60-95 | 75-100 | 85-100 | 95-100 |
| 1.18 | 57.61 | 30-70 | 55-90 | 75-100 | 90-100 |
| 600 Micron | 38.54 | 15-34 | 35-59 | 60-79 | 80-100 |
| 300 Micron | 15.96 | 5-20 | 8-30 | 12-40 | 15-50 |
| 150 Micron | 3.57 | 0-10 | 0-10 | 0-10 | 0-15 |

* Information is furnished by the Customer/Representative

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**Remarks :** This sample is under Zone-II specific limits.

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Job No.: CTCE/BBMP/WNo.13/KRIDL/CSR-09/134a/AGG/GR/2016-17 : 03.09.2016

## TEST REPORT ON COARSE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

*** Agency** : **Technical Manager (West),** KRIDL, Bangalore.

*** Name of Work** : Improvements of CC roads and drains at Lake side Avenue Defence Colony and Shanthi Layout and other roads in Ward No. 13, Shettyhalli Sub Division, BBMP, Bangalore.

**Reference** : AEE/SSD/PR/61/2016-17 Dated: 02.09.2016

**Technical Reference** : IS : 2386 Part 1 -1963 RA-2007

**Sample ID** : Coarse Aggregates (40mm) - Sample 8

**Sample Received on** : 02.09.2016

**Date of Testing** : 03.09.2016

Total Wt. of Aggregates in gms= **7000**

| Is Sieve Size in mm | Cumulative Weight Passing in % | Spec.Limits as per IS 383-1970 (RA- 2007) | |
|---|---|---|---|
| | | Graded | Single Sized |
| 80 | 100 | 100 | - |
| 63 | 100 | - | 100 |
| 40 | 96.73 | 95-100 | 85-100 |
| 20 | 35.09 | 30-70 | 0-20 |
| 10 | 13.10 | 10-35 | 0-5 |
| 4.75 | 1.50 | 0-5 | - |

* Information is furnished by the Customer/Representative

**Remarks :** This sample is under Graded specific limits.

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Job No.: CTCE/BBMP/WNo.13/KRIDL/CSR-09/134a/AGG/GR/2016-17 : 03.09.2016

## TEST REPORT ON COARSE AGGREGATES

| | |
|---|---|
| * Customer | : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore. |
| * Agency | : **Technical Manager (West),** KRIDL, Bangalore. |
| * Name of Work | : Improvements of CC roads and drains at Lake side Avenue Defence Colony and Shanthi Layout and other roads in Ward No. 13, Shettyhalli Sub Division, BBMP, Bangalore. |
| Reference | : AEE/SSD/PR/61/2016-17 Dated: 02.09.2016 |
| Technical Reference | : IS : 2386 Part 1 -1963 RA-2007 |
| Sample ID | : Coarse Aggregates (20mm) - Sample 8 |
| Sample Received on | : 02.09.2016 |
| Date of Testing | : 03.09.2016 |

Total Wt. of Aggregates in gms= **5000**

| Is Sieve Size in mm | Cumulative Weight Passing in % | Spec.Limits as per IS 383-1970 (RA- 2007) | |
|---|---|---|---|
| | | Graded | Single Sized |
| 40 | 100 | 100 | 100 |
| 20 | 96.76 | 95-100 | 85-100 |
| 10 | 30.18 | 25-55 | 0-20 |
| 4.75 | 3.22 | 0-10 | 0-5 |

* Information is furnished by the Customer/Representative

**Remarks :** This sample is under Graded specific limits

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JAS-ANZ BSCIC ISO 9001 REGISTERED


Job No.: CTCE/BBMP/WNo.13/KRIDL/STEEL/2016-17 03.09.2016

## TEST REPORT ON REINFORCEMENT STEEL

| | | |
|---|---|---|
| Customer | : | **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore. |
| Agency | : | **Technical Manager (West),** KRIDL, Bangalore. |
| Name of the Work | : | Improvements of CC roads and drains at Lake side Avenue Defence Colony and Shanthi Layout and other roads in Ward No. 13, Shettyhalli Sub Division, BBMP, Bangalore. |
| Reference | : | AEE/SSD/PR/61/2016-17 Dated: 02.09.2016 |
| Date of Test | : | 03.09.2016 |
| Technical Reference | : | IS: 1786-2008 |

| Sl. No | Nominal size (dia) (mm) | Mass per metre (Kg/mtr) | TENSILE STRENGTH | | | Bend Test | Rebend Test |
|---|---|---|---|---|---|---|---|
| | | | 0.20% proof stress/Yield stress $N/mm^2$ | Tensile strength (Ultimate stress) $N/mm^2$ | Elongation percent gauge length | | |
| 1 | 8 | 0.40 | 513 | 554 | 13.15 | O.K | O.K |

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|---|---|---|---|---|---|---|---|
| | | | 0.20% proof stress/Yield stress $N/mm^2$ | Tensile strength (Ultimate stress) $N/mm^2$ | Elongation percent gauge length | | |
| 1 | 10 | 0.62 | 516 | 559 | 13.35 | O.K | O.K |

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|---|---|---|---|---|---|---|---|
| | | | 0.20% proof stress/Yield stress $N/mm^2$ | Tensile strength (Ultimate stress) $N/mm^2$ | Elongation percent gauge length | | |
| 1 | 10 | 0.62 | 516 | 559 | 13.35 | O.K | O.K |

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